

Table 1

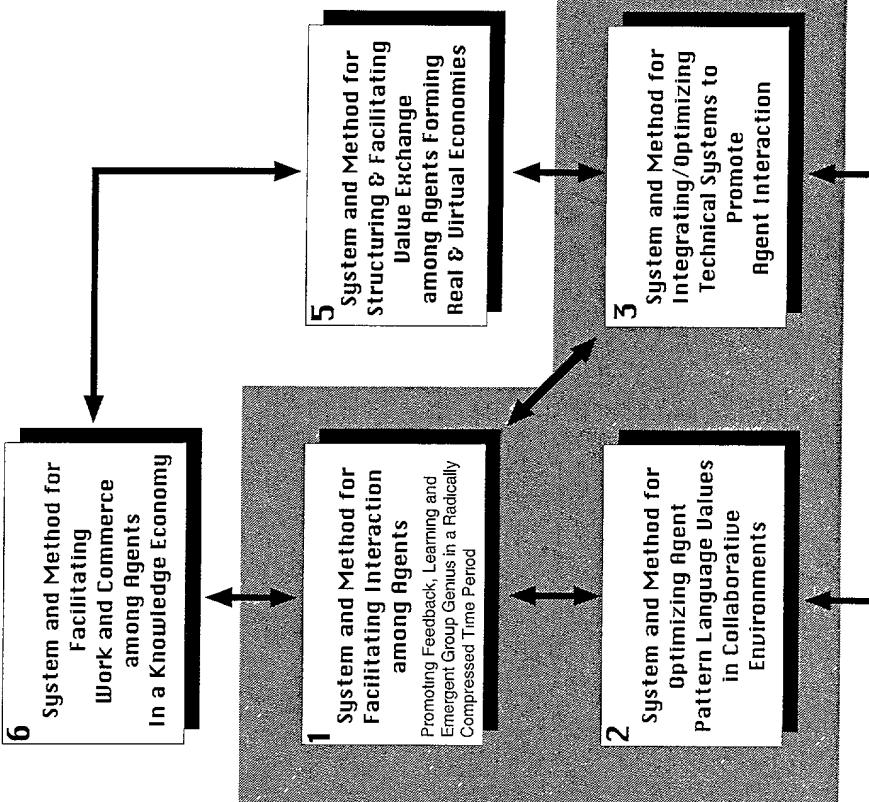
System and Method for Augmenting Knowledge Commerce



There are paradoxes and problems associated with the Knowledge Economy, and the *transition to it*, that are not addressed by existing systems and methods of work and the tools utilized for conducting commerce. This invention creates a unified experience of work that scales from individual thought processes to the building and using of a Global system of commerce.

It integrates, into a single method, a myriad of now un-integrated tools and processes that are conducted across contradictory and non-collaborative environments.

It provides a way-of-working that unifies the value of AGENTS of all kinds: Human, machine, environmental and a wide array of tools, infrastructure elements and methods of information storage and commerce.



All six Sub-Systems of this invention are linked, connected and integrated in a myriad of ways at many levels of recursion - the Arrows shown are the *STRONG* connections on the "top" level of the SYSTEM.

Relationship Among Patent Sub-Systems

1 - AGENT INTERACTION

Dissolves many problems of numerous agents (Humans, computers, books, data bases, environmental and infrastructure elements, multimedia objects, etc.) speaking in non-compatible voices while interacting to solve complex problems associated with the necessity to stay/requisite with a quickly changing and transforming environment and economy.

2 - AGENT ENVIRONMENTS

Dissolves many problems of Human (and other Agents) Architectural Pattern Language Values while accomplishing flexibility of arrangement (from workstation component level to building scale), the variety of individual and work spaces necessary for the full range of knowledge-intensive work (including collaboration of different size groups), the integration of multimedia and communication tools, yet, accomplishing a greater utilization of space and utilities than existing systems.

3 - AGENT SYSTEMS

Dissolves many problems of knowledge-augmentation by technical systems and tools for single Agent work and the collaborative interaction of Agents, both real time and asynchronously, through multi-channel and multimedia networks and tool sets.

4 - AGENT TRANSPORTATION

Dissolves many problems of seamless and integrated Agent (and agent environments) transportation providing a continuity of work and experience required by the demands of a global economy.

5 - AGENT ECONOMY

Dissolves many issues of facilitating knowledge-economy Transactions and Agent value accounting while radically reducing the multiplicity of financial instruments (in a myriad of legal environments) now systemic to the industrial-based economy.

6 - AGENT WORK AND COMMERCE

Dissolves many problems of Agent participation in a Complex Global Economy and the *TRANSITION* to it.

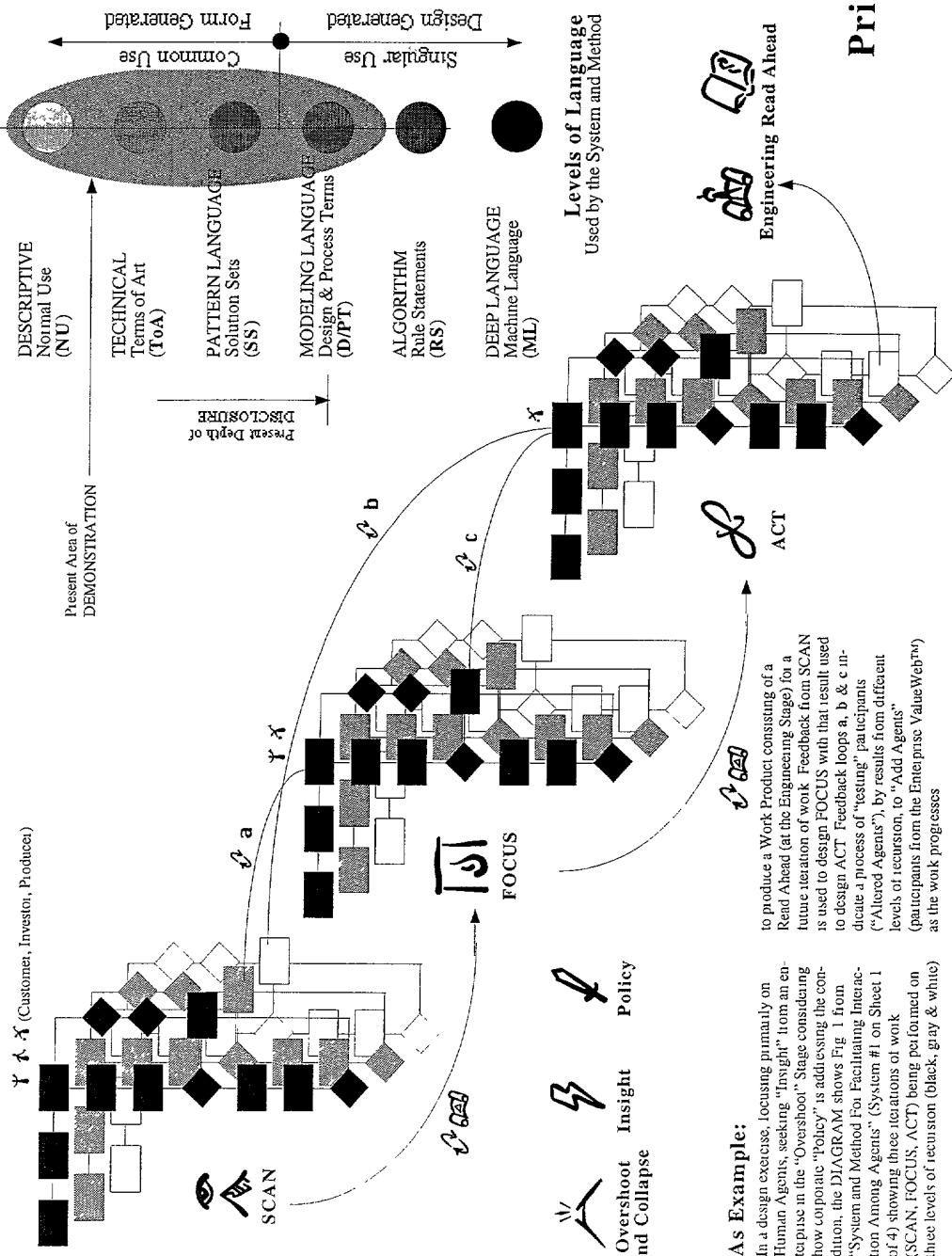
All of these Sub-Systems INTEGRATE into a single system and methodology-of-work that facilitates a seamless, continuity of effort and high-performance results across what are now partially connected systems, (at different and often, non-communicating levels of recursion), now delivering a fragmented, expensive and lengthy experience that is not requisite with the existing (let alone future) complexity nor rate-of-change in the global economic environment.

Area of Present demonstration

This work is expressed in a variety of products and services in the market place such as DesignShop™ experiences, various Work Shops, NavCiti™, and various work environments. PatchWorks Design™ projects will require and utilize agents of all kinds

Table 2

System and Method for Augmenting Knowledge Commerce



Rule of Recursion

All elements that define viability, on one level of recursion, of a system must occur on all levels of recursion of the system.

For a *complex* agent to be viable or for a simple agent to be effective in a complex environment, (of agents) the Agent must be "acted upon" and/or act at a minimum of three Levels of Recursion ("above," at the level of the Agent and a level "below" the Agent).

Actions that on a single Level of Recursion that are additive, on multiple Levels of Recursion will usually be multipliers. *Leverage* is accomplished by employing more than one Level of Recursion (thus, dealing with the Requisite Variety Rule: Variety must equal Variety). Generally, greater complexity can be dealt with or accomplished by employing Recursion than by action on one level of a system (given the same number of actions and level of resources).

Emergence happens "between" (out of) Levels of Recursion.

Rule of Iteration

All things being equal, a single iteration of work, in isolation, is additive between steps while multiple iterations of work (in a continuous process) multiplies results.

Work iterations must happen in rapid succession and within time compression for maximum effect.

Rule of Feedback

Feedback is the message from a sensor of the system to the controller of the system of the difference between performance and expectation. Positive feedback amplifies; negative feedback attenuates.

Feedback on feedback and/or feedback between Levels of Recursion is feedback of a *complex* kind and is required for the governance (self correction) of complex and emergent systems.

Rule of Iterative, Feedback Driven Systems acting on Multiple Levels of Recursion

These systems exhibit *increasing returns* and learning. They co-evolve (with their environment) emergent behavior. They are open-ended and cannot be predicted or controlled.

These systems can be *operated* in a way so that the desired *kinds* of results are consistently accomplished. This is possible when the Rules of Iteration, Feedback and Recursion are employed in a System of specific architecture (as described) that employs sufficient critical mass. Emergence is the result of complexity. Complexity is a factor of iteration, feedback, recursion, critical mass and the number of Agent (nodes) interactions in a specific time period and place.

Principles of Iteration and Feedback and The Rule of Recursion

Table 3

System and Method for Augmenting Knowledge Commerce

Demonstrates the System by outlining (using the language of the System) a Patch-Works Design™ process for developing the "System and Method for Transporting Agents" Component of the Invention (#4 - Page 1 of 4).

Successful PatchWork Design exercises require a robust expression of the System integrating all 6 Sub-Systems diagrammed on page 1.

Systemic problems (or opportunities) cannot be economically dealt with using today's tools or economic measures and instruments.

The present organization of the work fails to facilitate enough complexity to meet the Requisite Variety demands of the work being attempted in the existing environment.

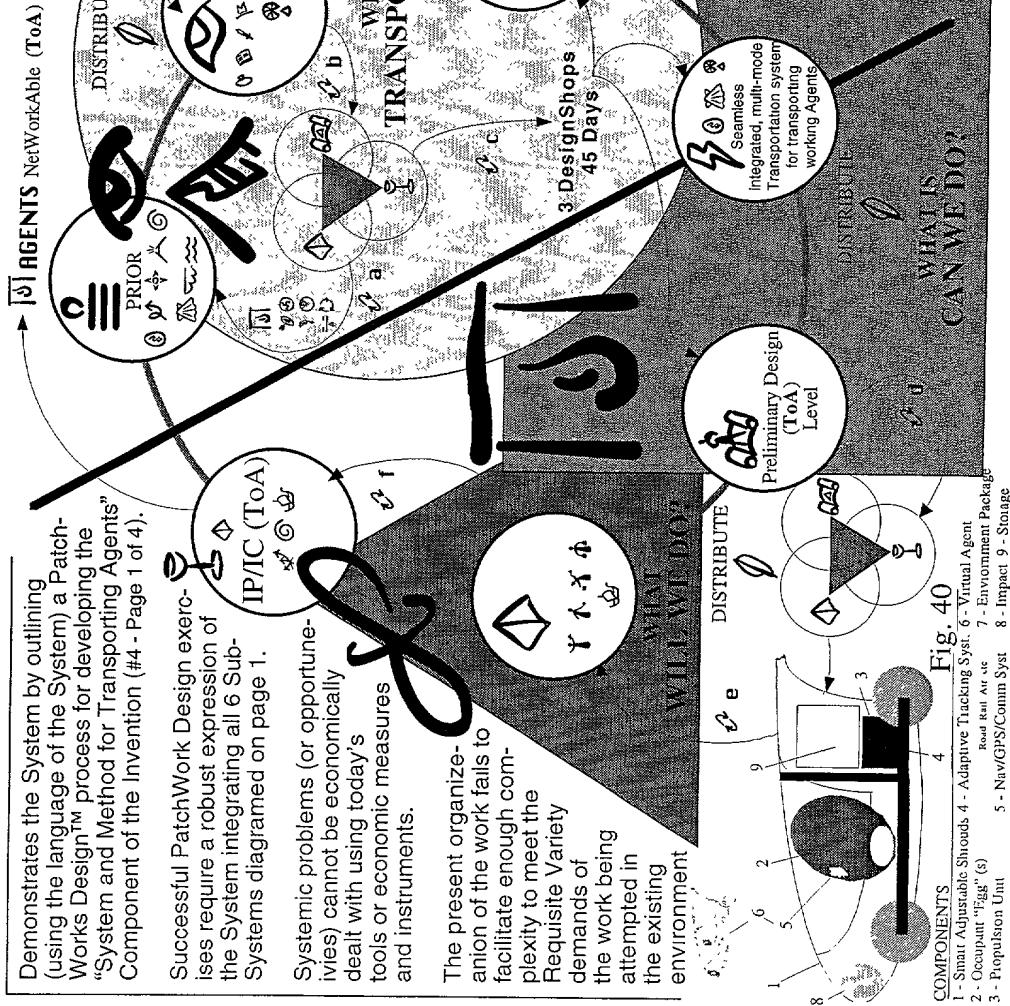
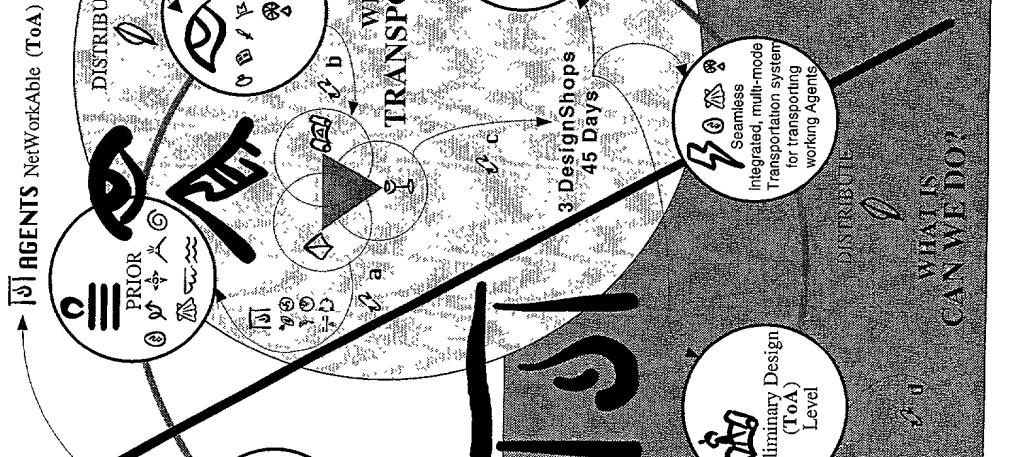


Fig. 40
COMPONENTS
1 - Smart Adjustable Shrouds 4 - Adaptive Shroud 5 - Virtual Agent
Road Rail Air Sea 6 - Environment Package
7 - Navigation System 8 - Impact 9 - Storage
3 - Propulsion Unit



③: Employing a PatchWorks Design™ (ToA) for 130 K organizations $\oplus \text{K} \oplus \text{Y} \oplus \text{X} \oplus \text{Z}$ (10 Tier 1, 30 Tier 2 & 90 Tier 3), 8 K organizations and 3 L organizations with a project phase duration of 180 days and total financial resources equivalent to \$15,000,000 U.S. to $\oplus \text{K} \oplus \text{L}$ a prototype for $\oplus \text{Q}$ purposes with the \oplus in mind to \oplus a Y K X P consortium to \oplus a Y Q Y Q \oplus global \oplus .

④: Select HumanAgents (ToA) and knowledgeObjectAgents (ToA) by $\oplus \text{Y} \oplus \text{Z} \oplus \text{X} \oplus \text{W}$, $\oplus \text{Y} \oplus \text{Z} \oplus \text{X} \oplus \text{W}$ (RS filters (Fig. 1 Decider S3, S8), $\oplus \text{Y} \oplus \text{Z}$ IP/IC (ToA) to deploy VirtualAgents (ToA) to transact value in the NetWork (ToA).

⑤: Remote Collaboration™, Remote Presence™, KnOwhere Store™ \oplus and $\oplus \text{Y} \oplus \text{Z} \oplus \text{X} \oplus \text{W}$ PROCESS to $\oplus \text{Y}$ and $\oplus \text{Z}$ the Y K X P NetWork (ToA) through synchronous and asynchronous multiple iterations (ToA) of $\oplus \text{Y} \oplus \text{Z}$ activities (see: \oplus e) on simultaneous multiple levels of recursion (ToA) and to provide $\oplus \text{Y} \oplus \text{Z}$ experiences for participating designers and general public via Work Shops and the Internet as $\oplus \text{Y} \oplus \text{Z} \oplus \text{X} \oplus \text{W}$ (sec: $\oplus \text{b}$). Exercise $\oplus \text{Y} \oplus \text{Z} \oplus \text{X} \oplus \text{W}$.

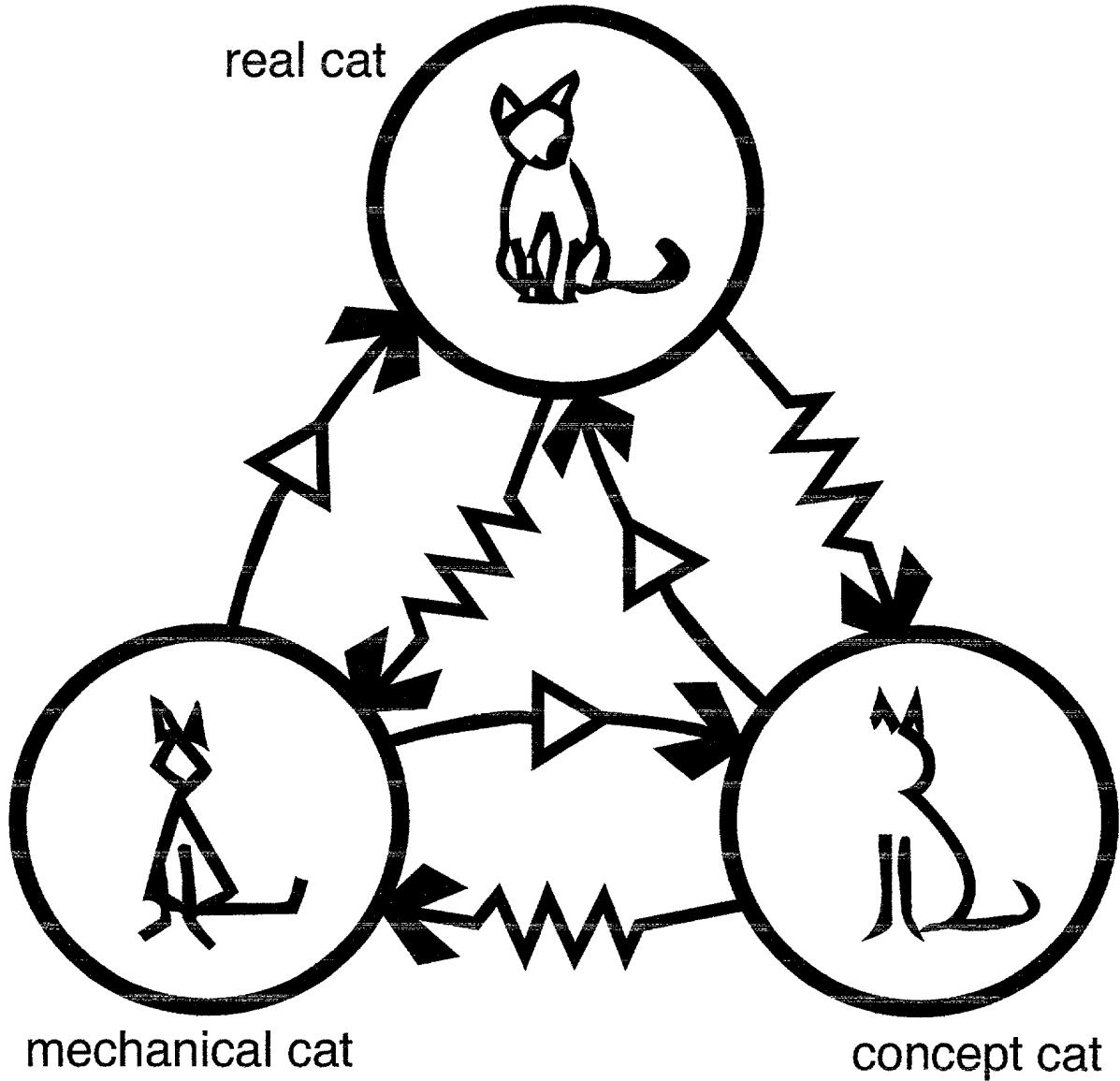
⑥: Employ Pattern Language (SS) from "The Art of War" (Sun Tzu) to protect and position the project in the present political/social environment. Employ a variety of design and simulation Modules (SS) in an iterative (ToA) series of DesignShops™ and Work Shops (WSR™, CHOICE™, 7 Domains™) on three basic levels of Recursion (ToA).

⑦: Build Virtual Agents as ValueTransactors (ToA) and instruments of execution. Exit the Agents (see Fig. 1) periodically for \oplus to the process and for transacting ValueExchanges (ToA) (see: \oplus e). Leverage IP/IC (ToA) on ongoing basis so as to generate Increasing Returns (ToA) to self fund the \oplus . Create KnowledgeEconomy (ToA) among Y K X P per methods of Sub-System 4 (see sheet 1 of 4)

Partial Description of Sub System 4 Elements

utilizing a sampling of

Modeling Language and Algorithms



three cat

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Table M1

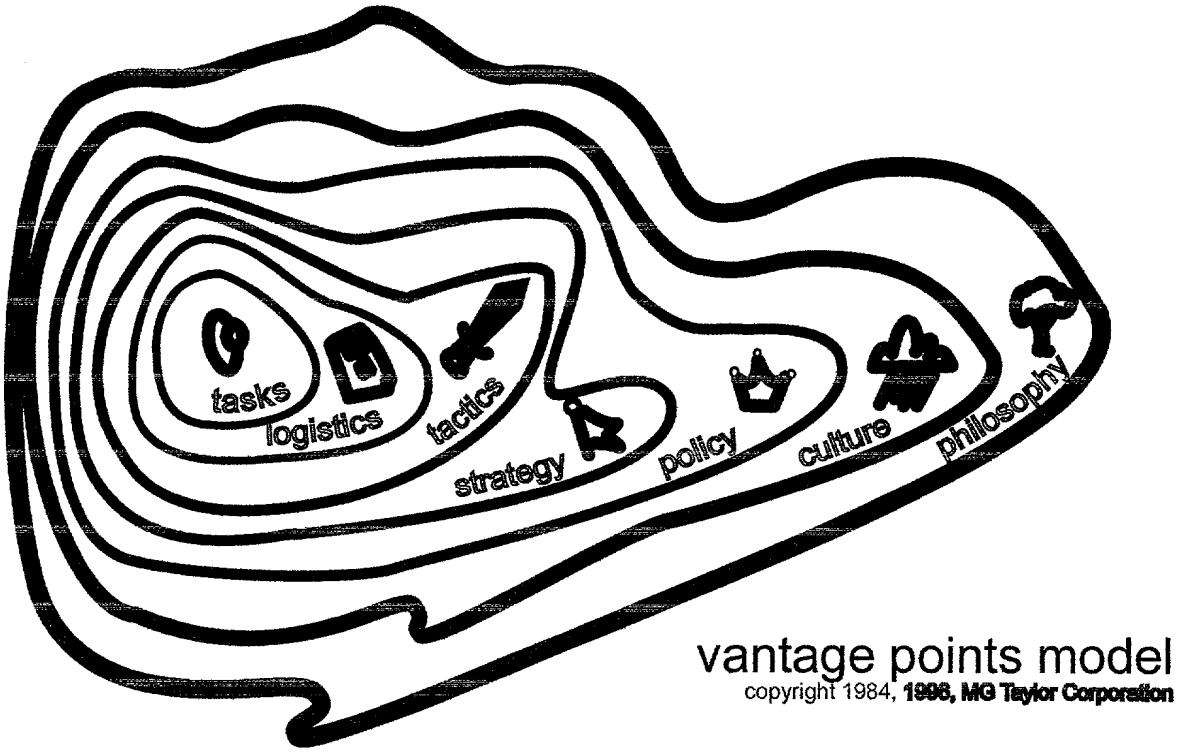
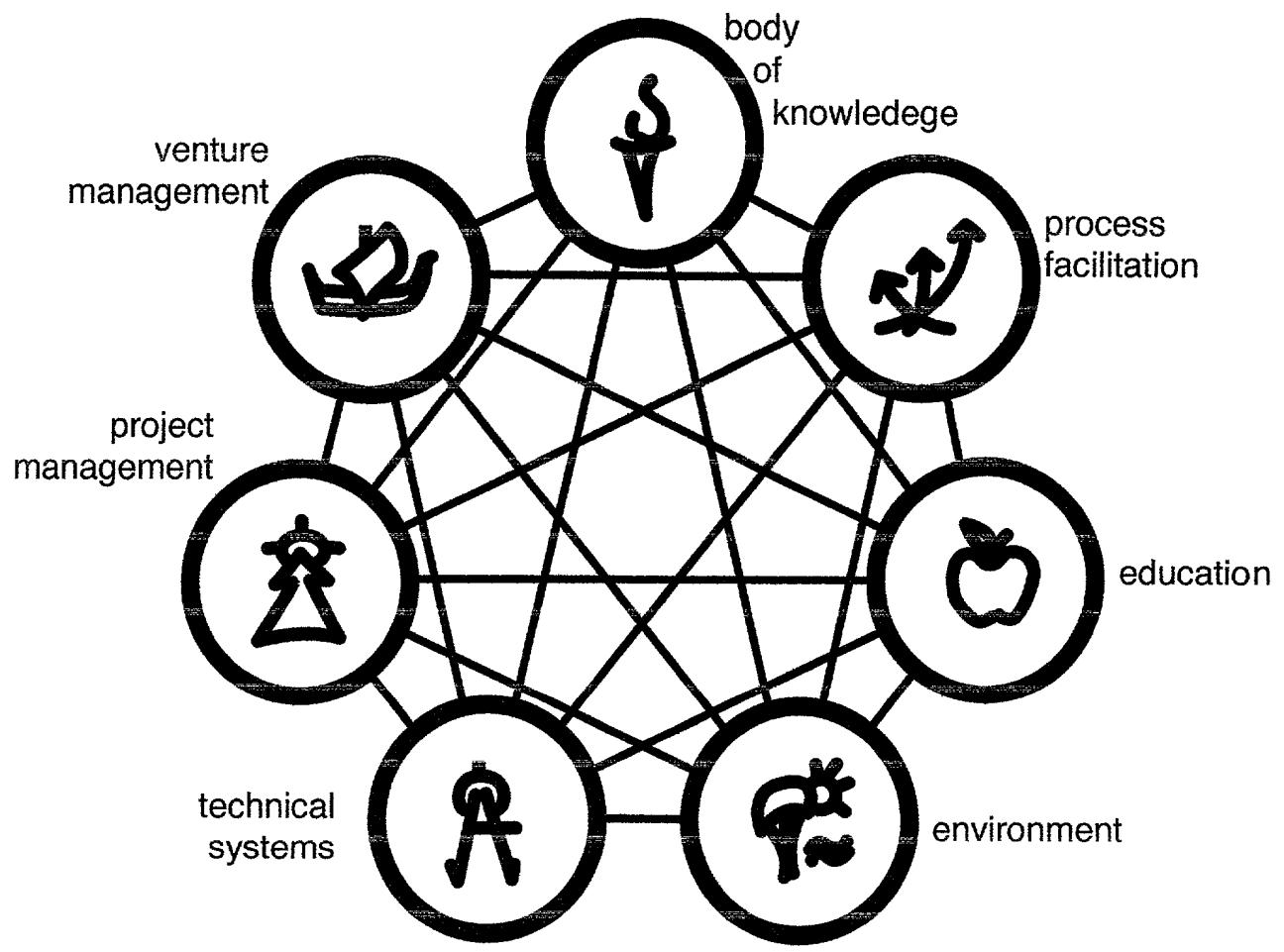
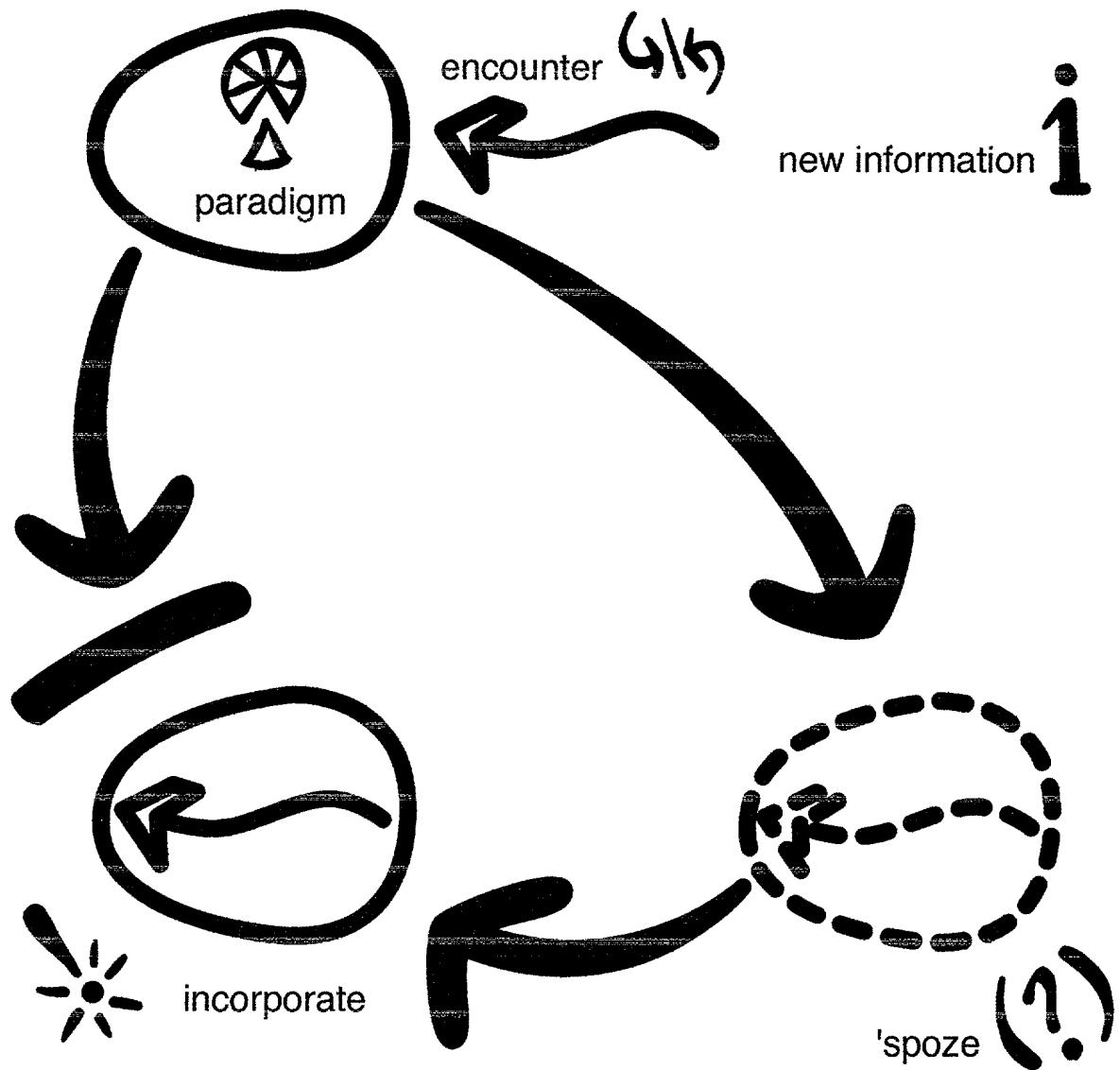


Table M2



7 domains[®]
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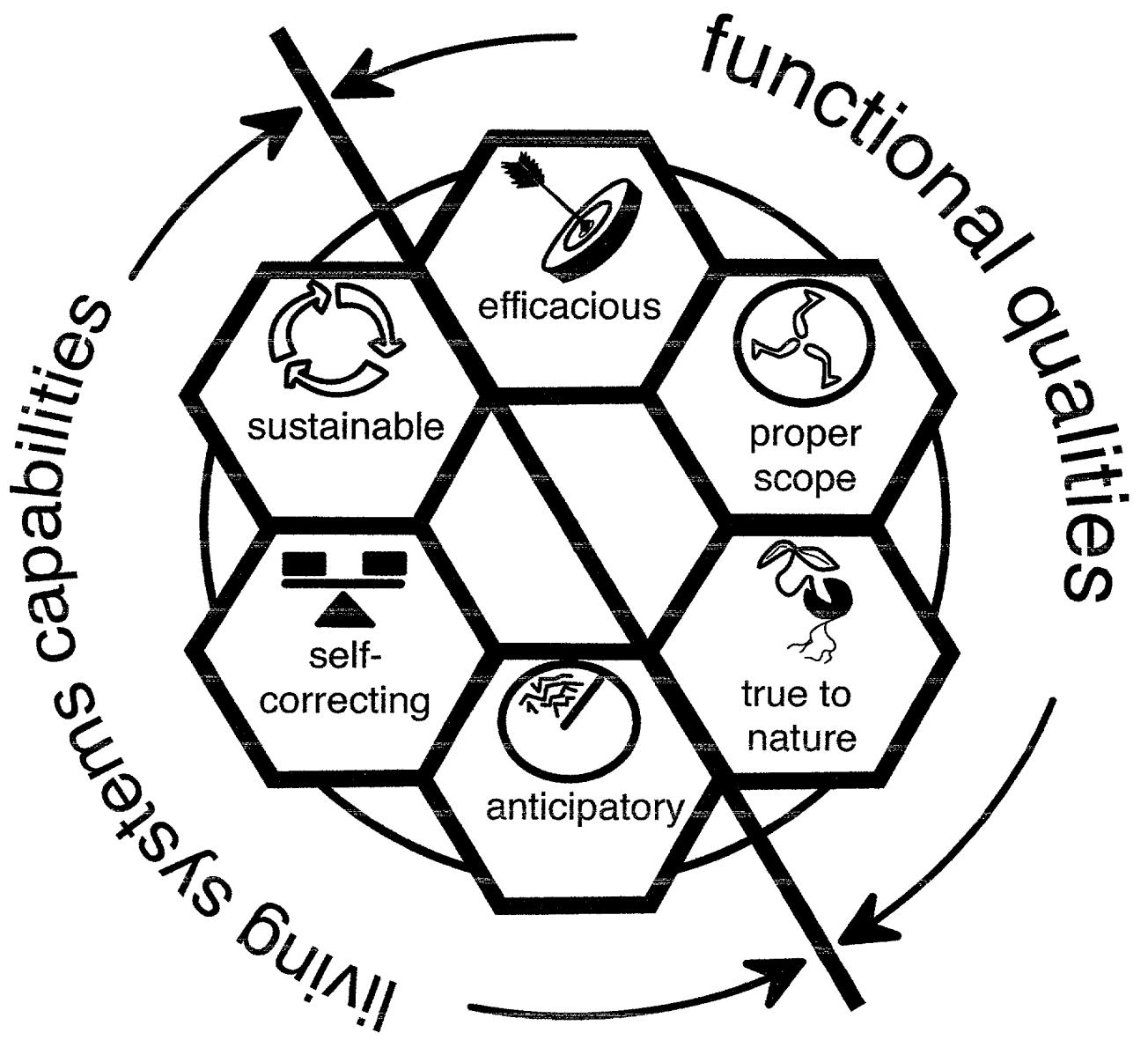
Table M3



'spuze

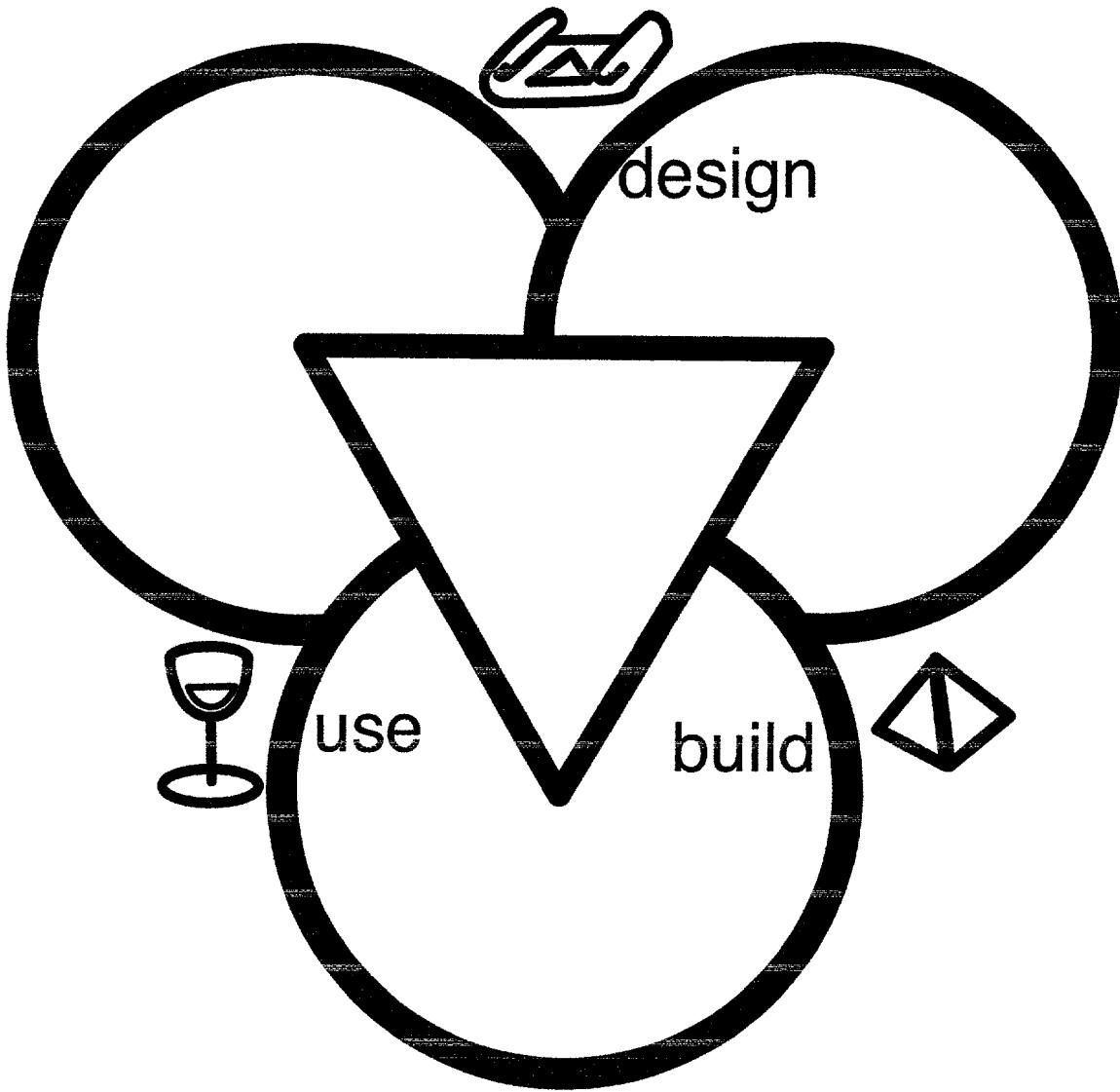
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Table M4



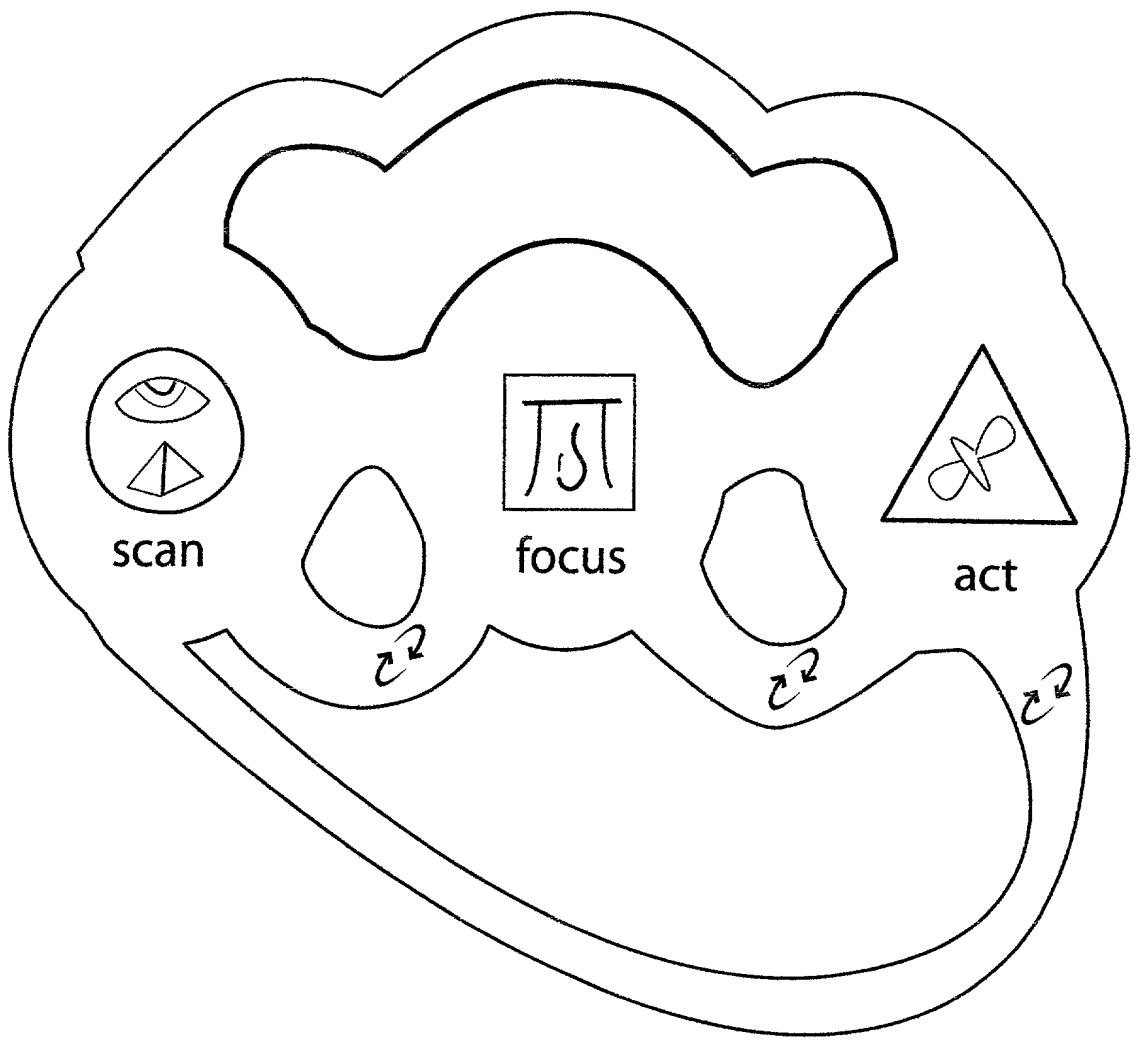
appropriate response model
copyright 1984, 1997, MG Taylor Corporation

Table M5



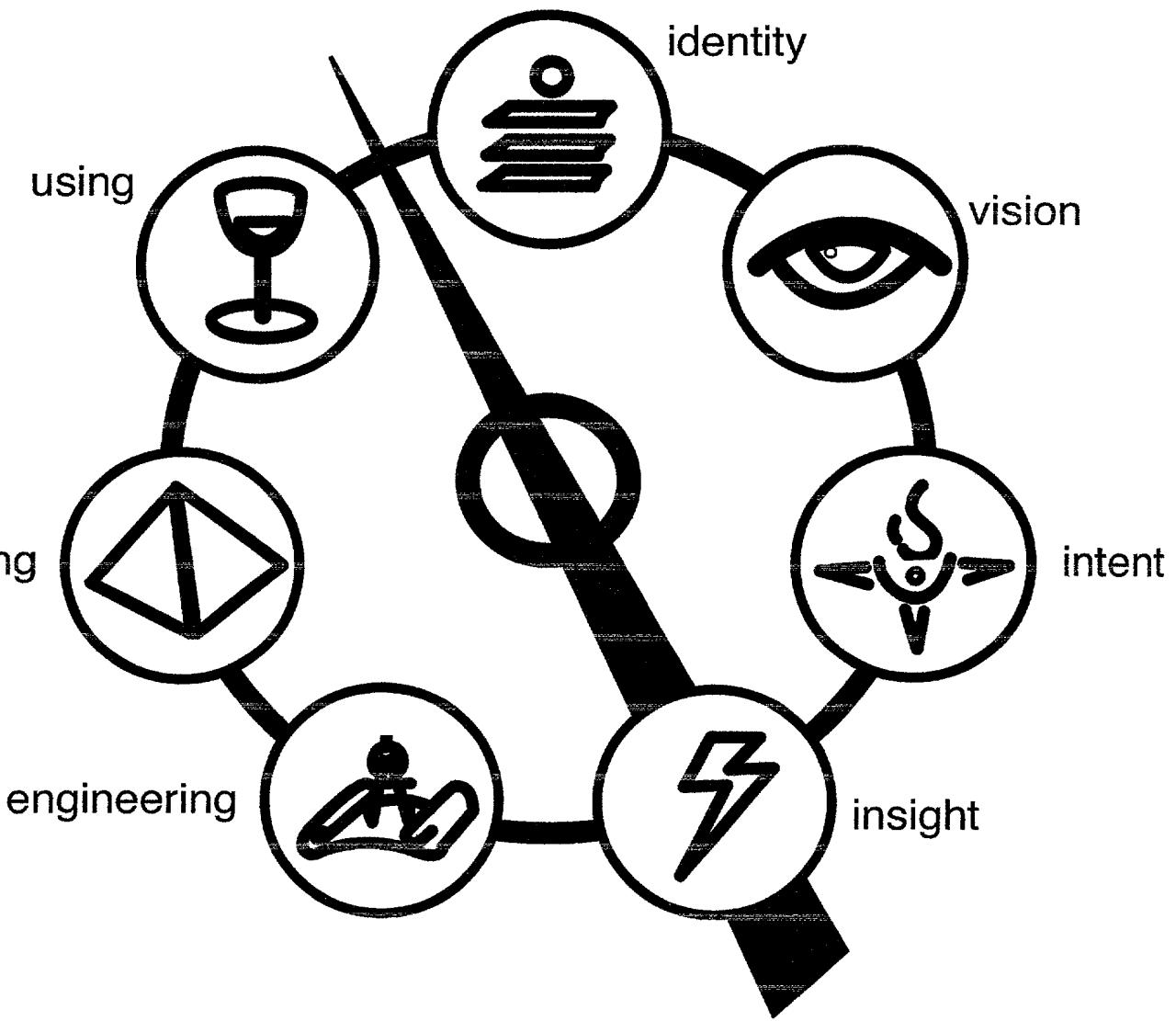
design build use
copyright 1982,1997, MG Taylor Corporation

Table M6



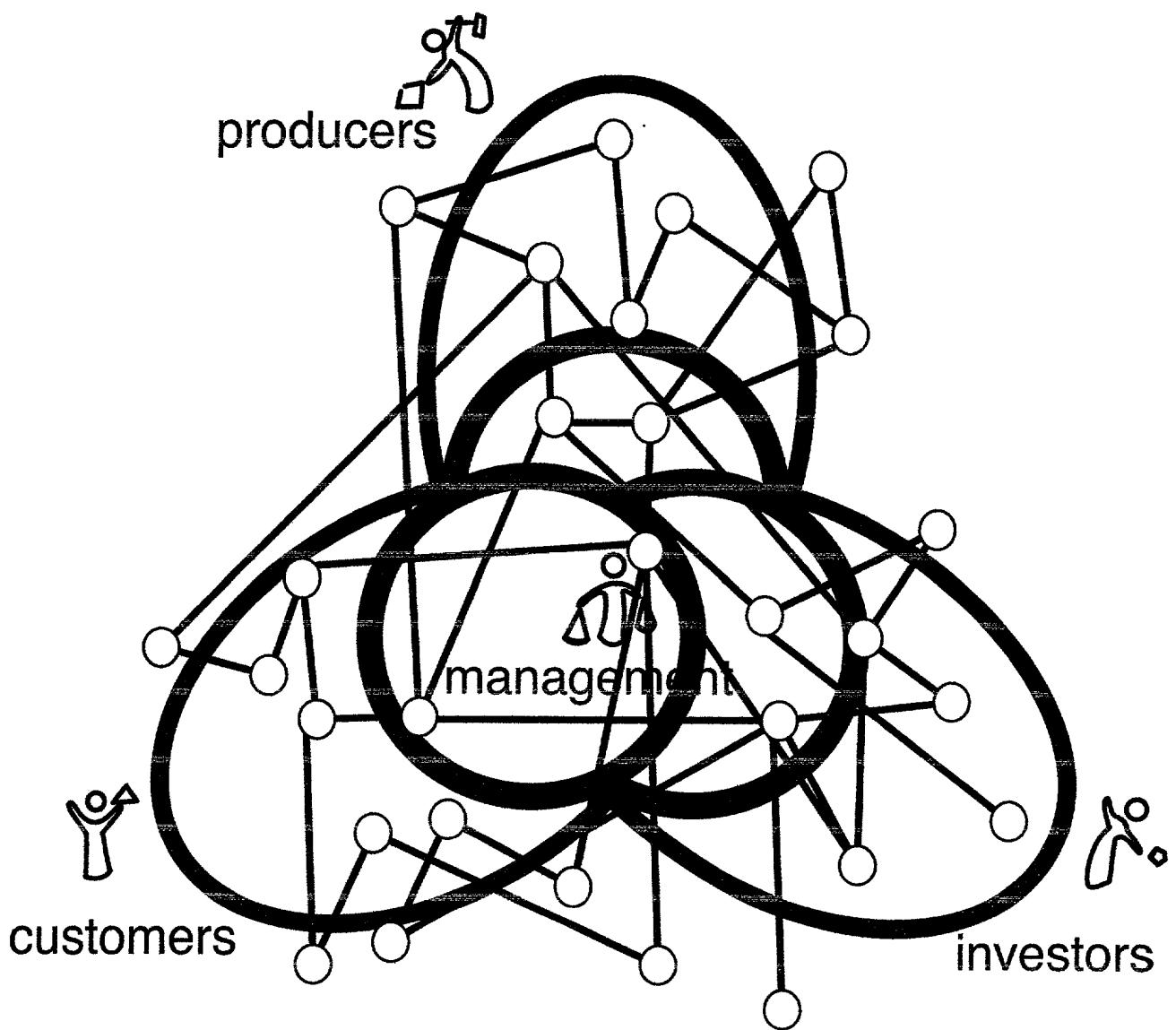
scan focus act
© 1996, MG Taylor Corporation

Table M7



creative process model
copyright 1982, 1996, MG Taylor Corporation

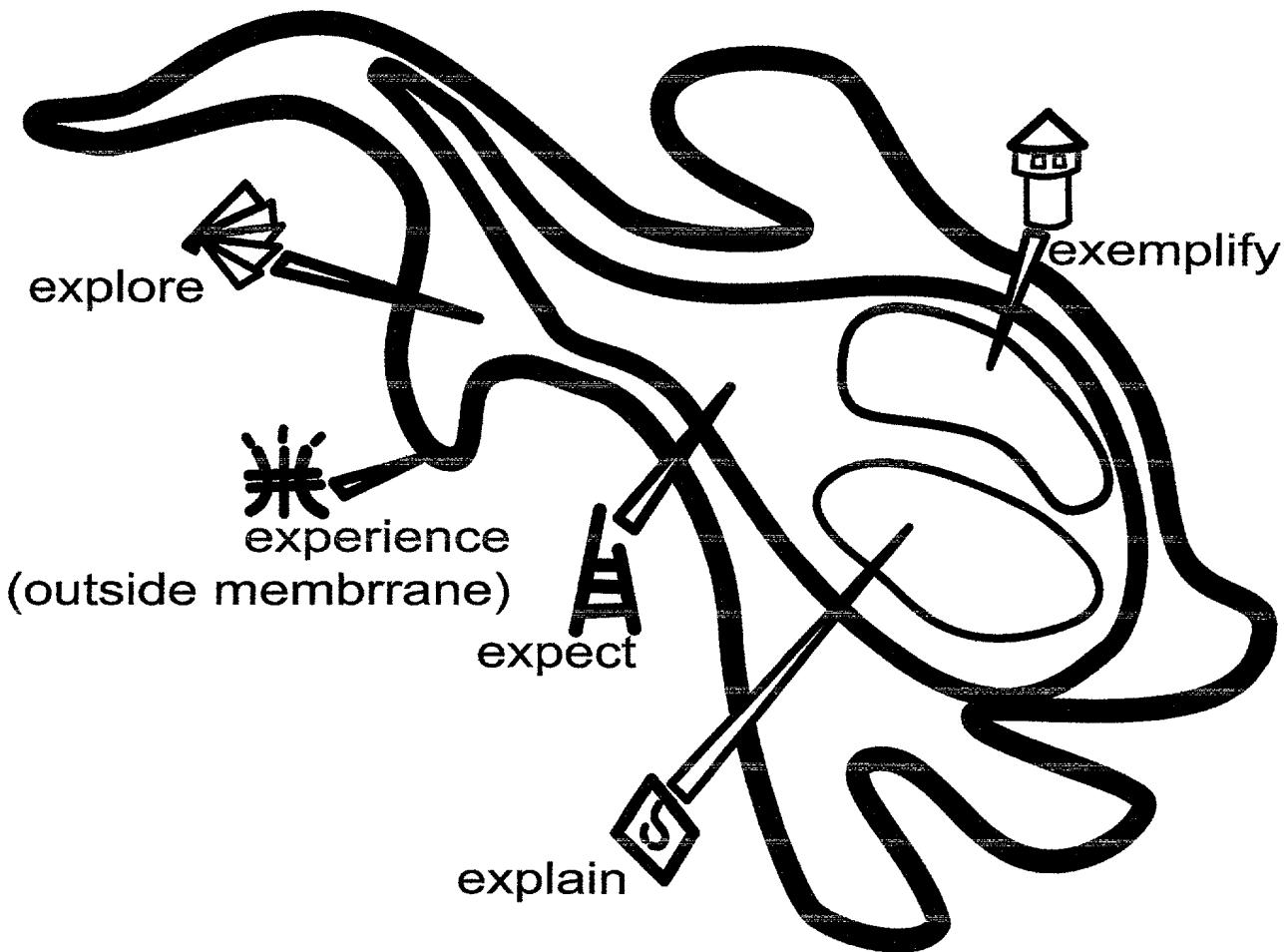
Table M8



ValueWeb[®]

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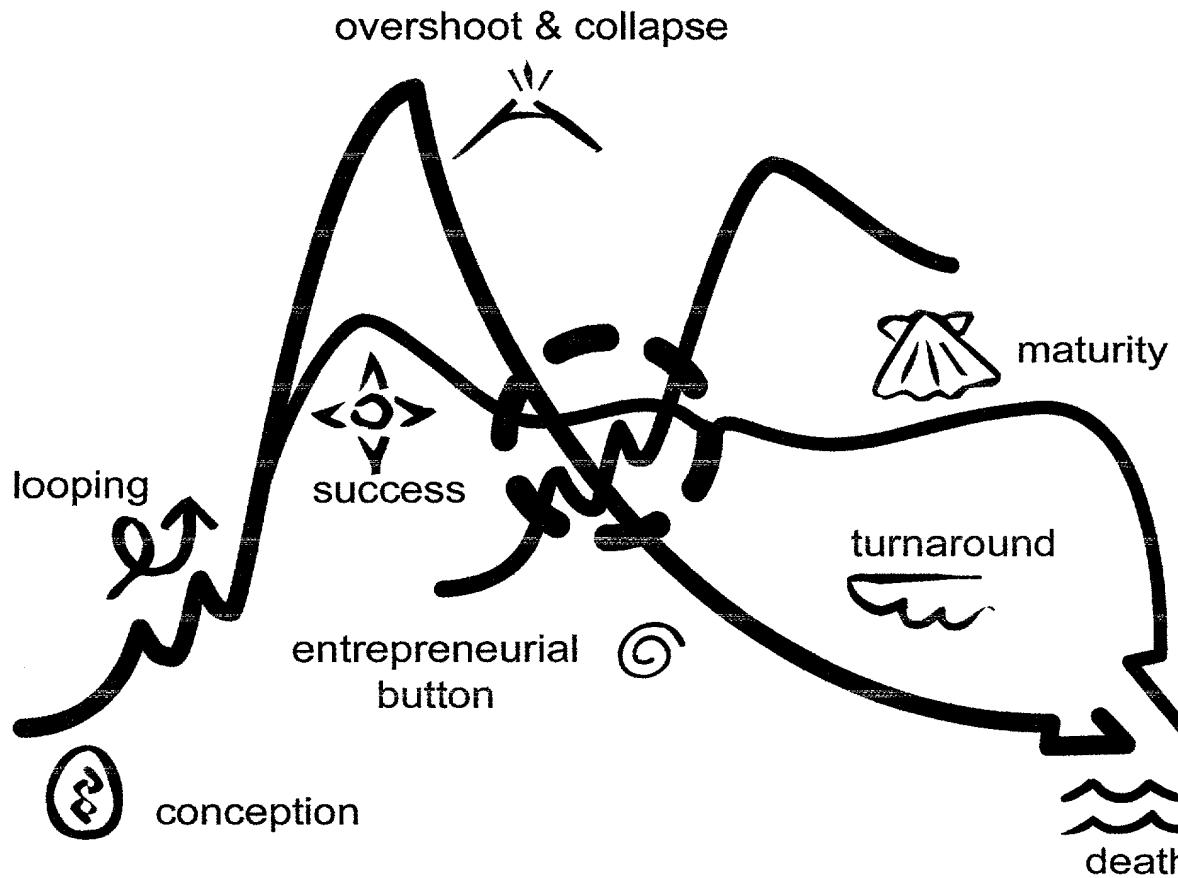
Table M9



5 e's of education

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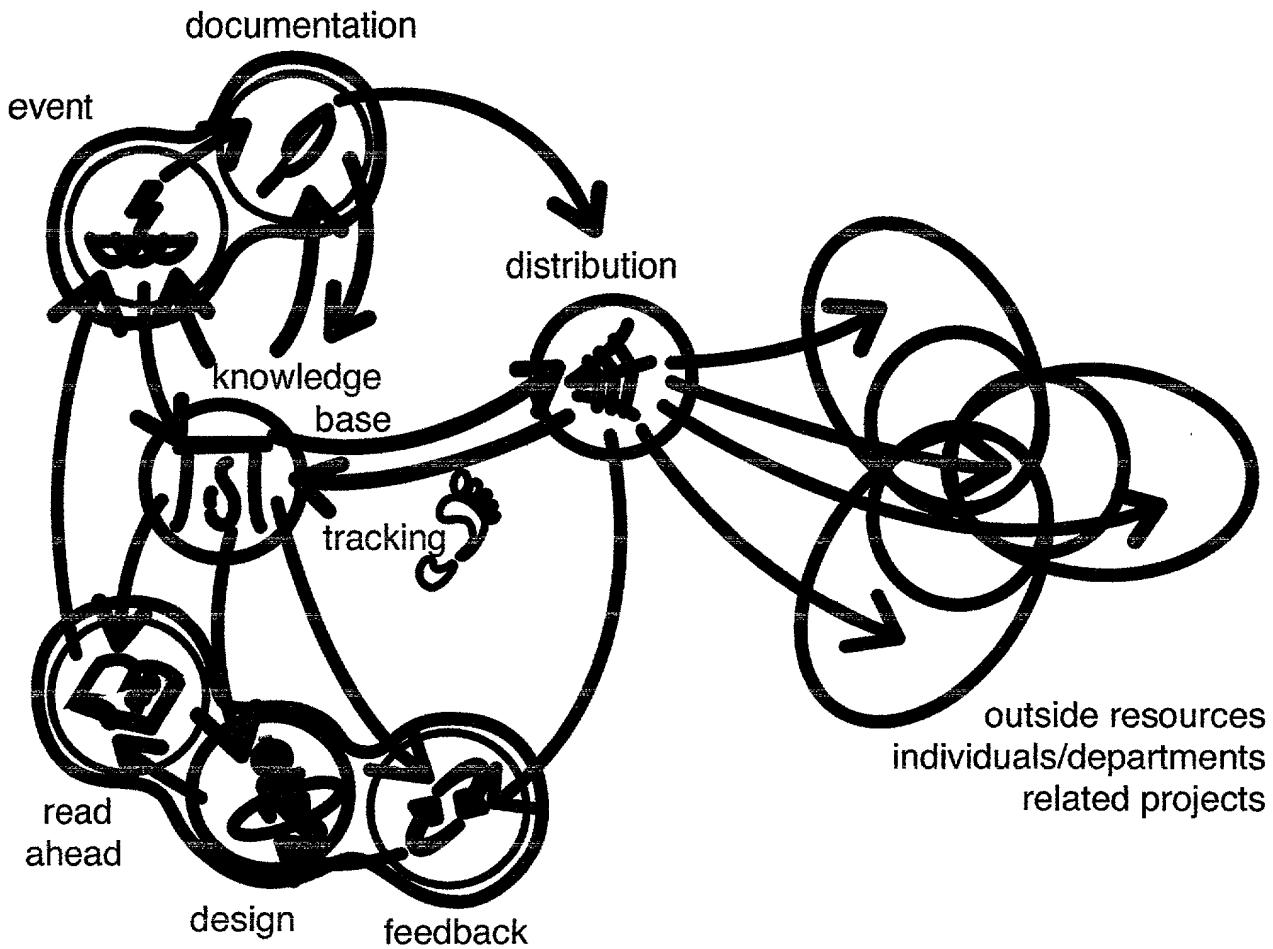
Table M10



stages of an enterprise

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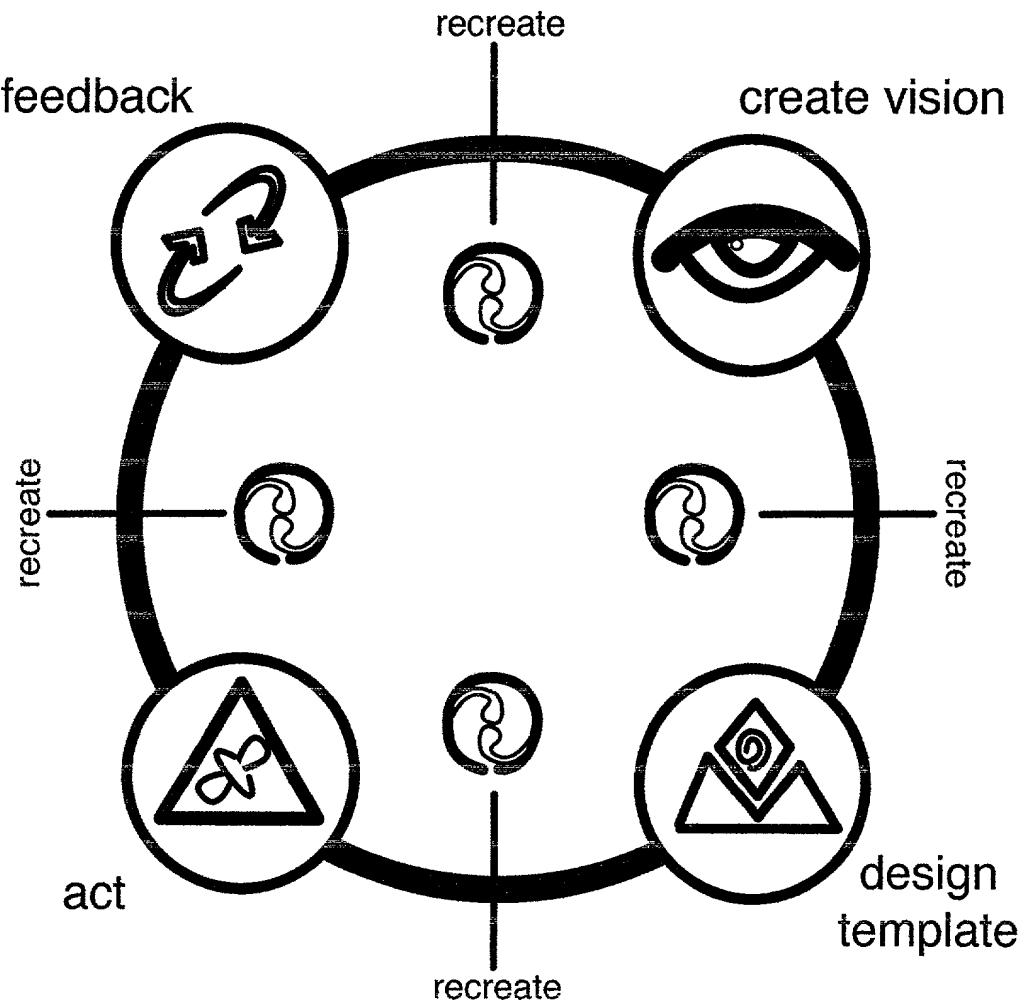
Table M11



10 step knowledge management model^{AE}

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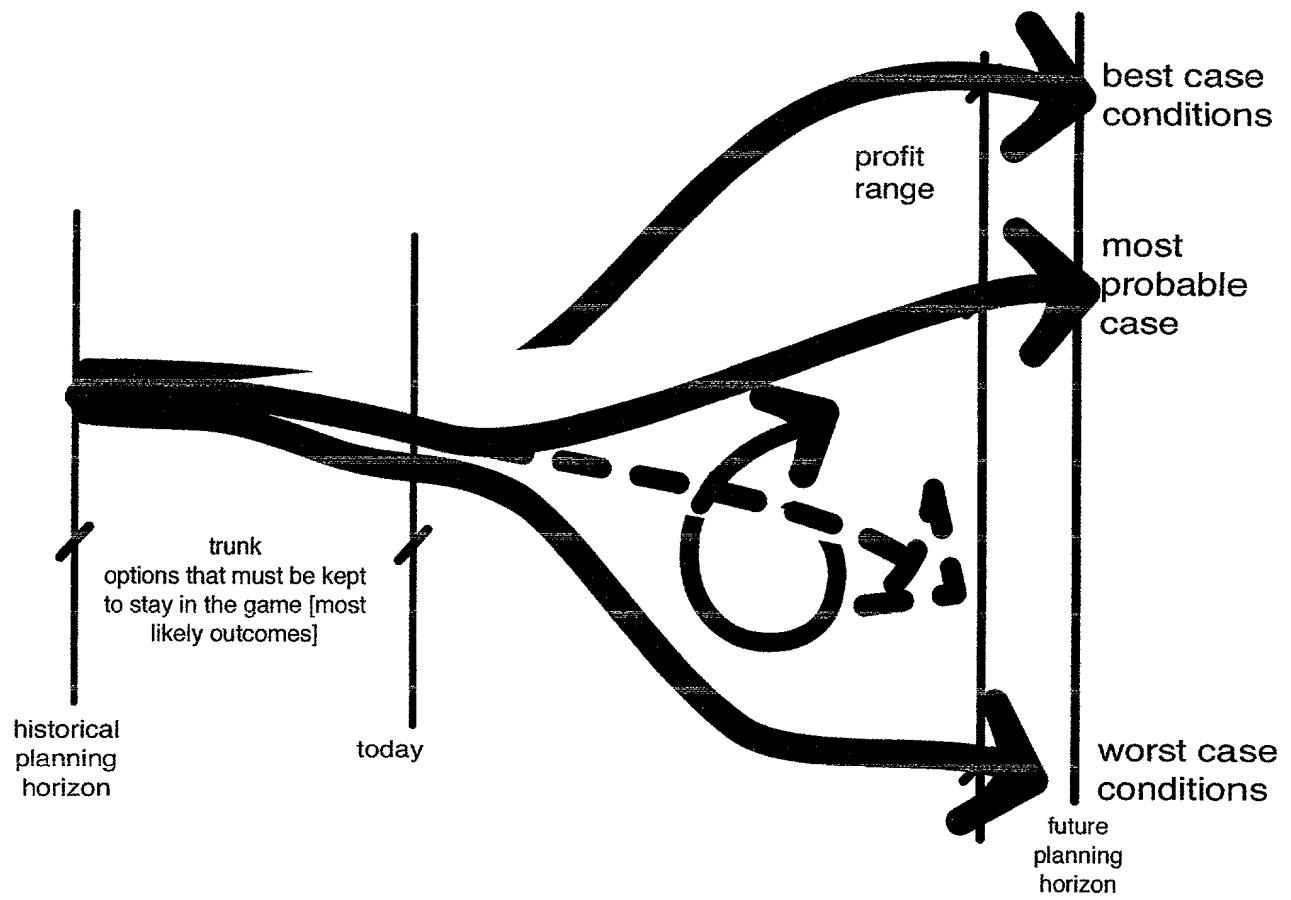
Table M12



4 step recreative process

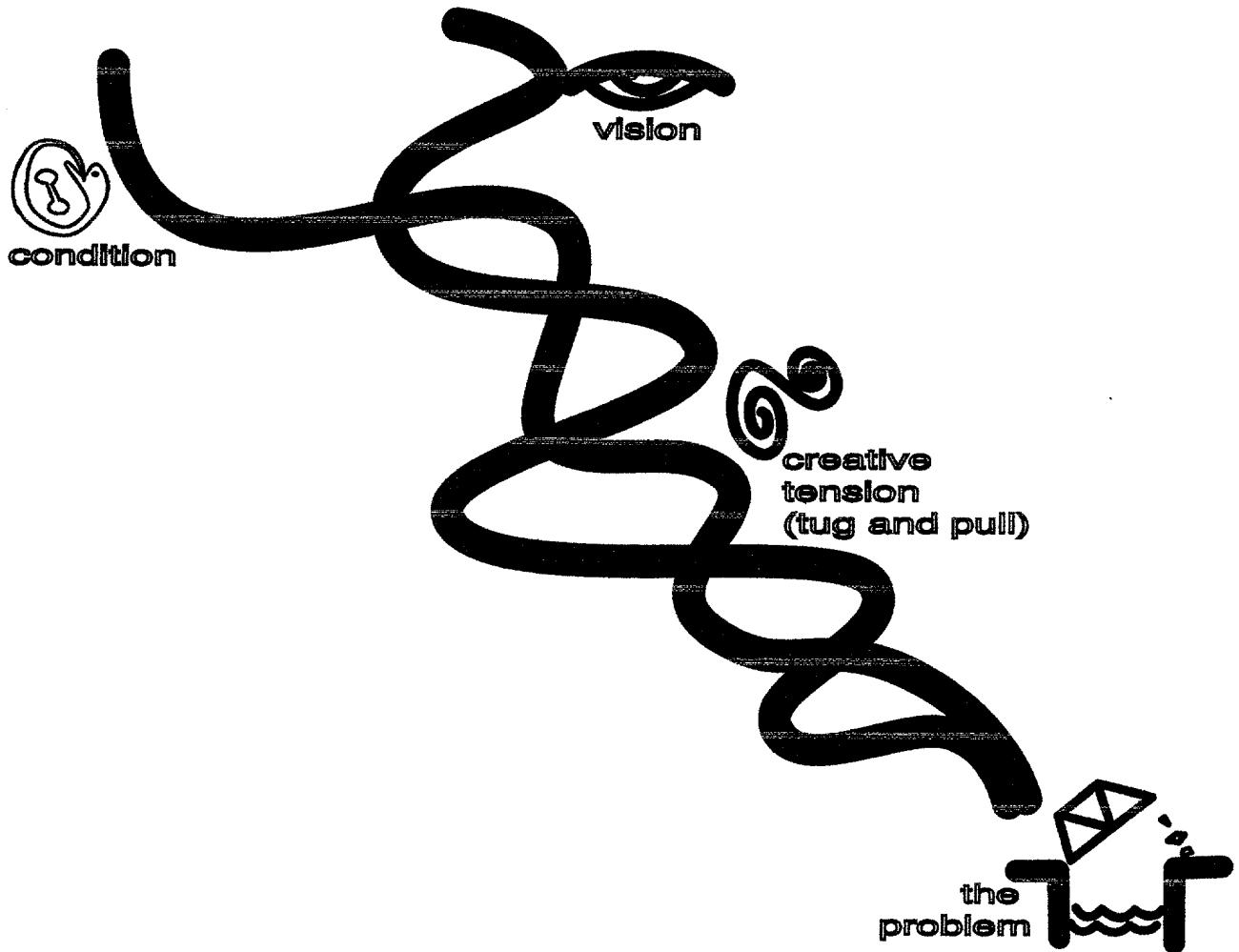
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Table M13



best case, worst case model
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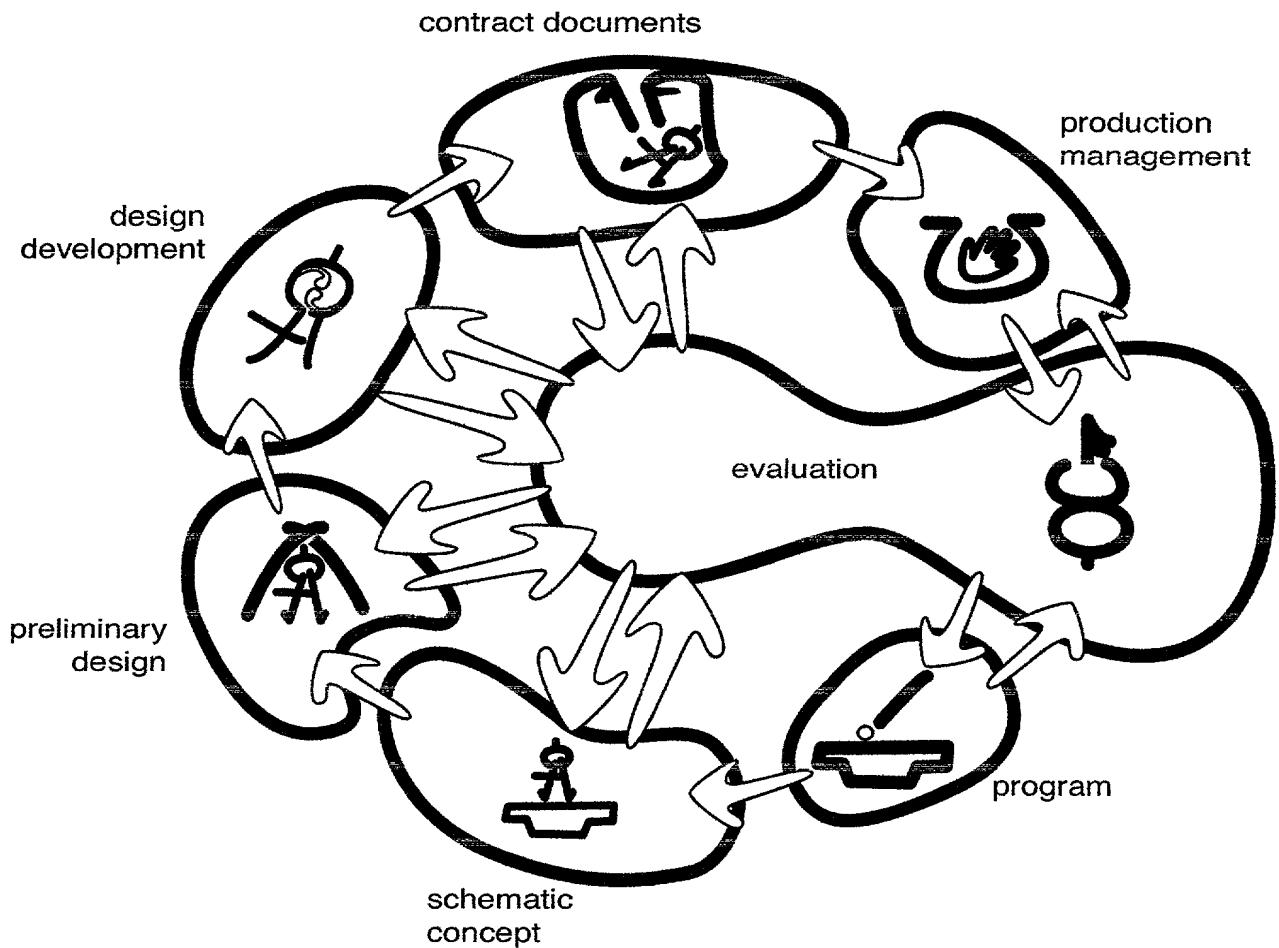
Table M14



creating the problem model

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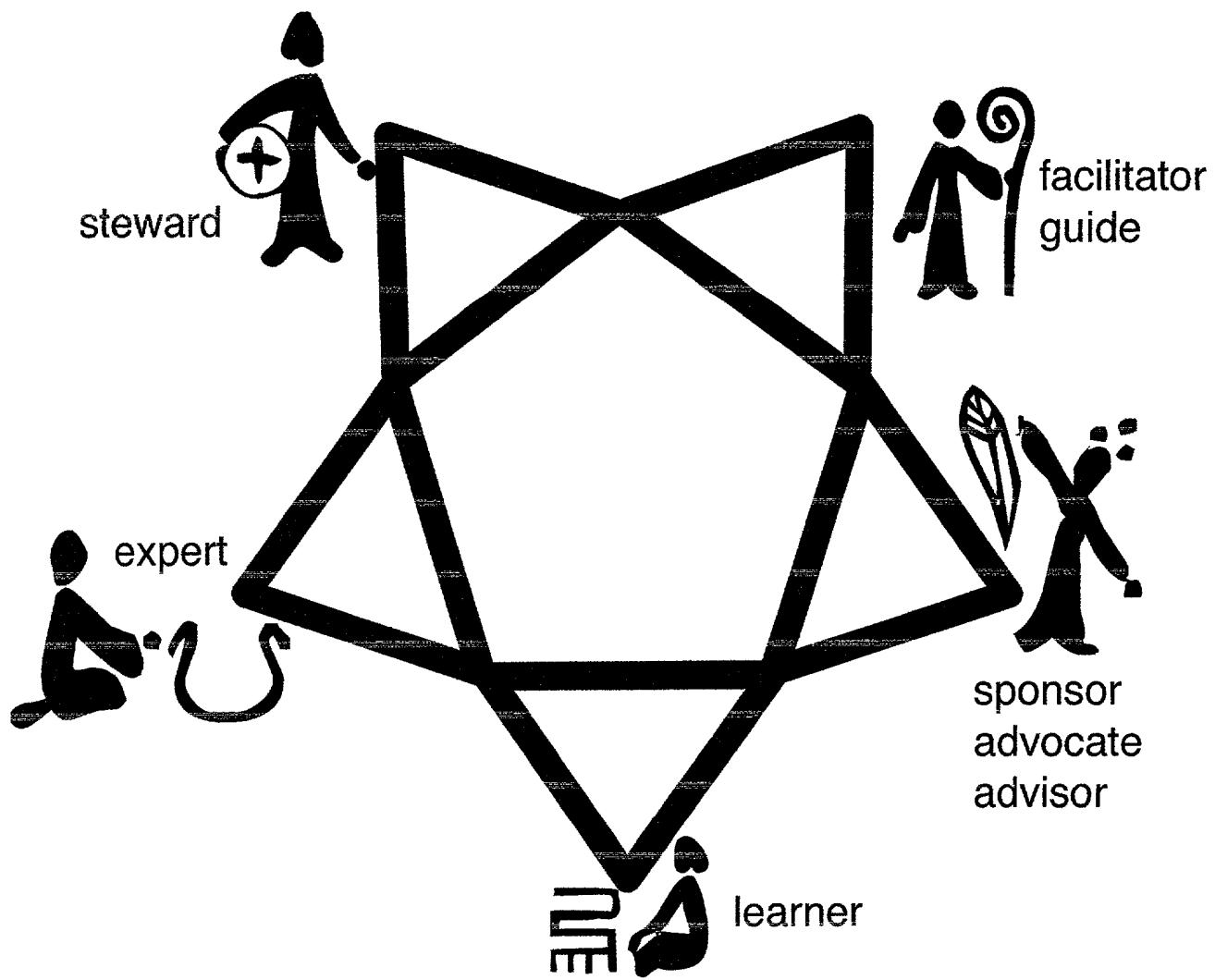
Table M15



design formation[®] model

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Table M16



the learning path: five points of mastery
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Table M17

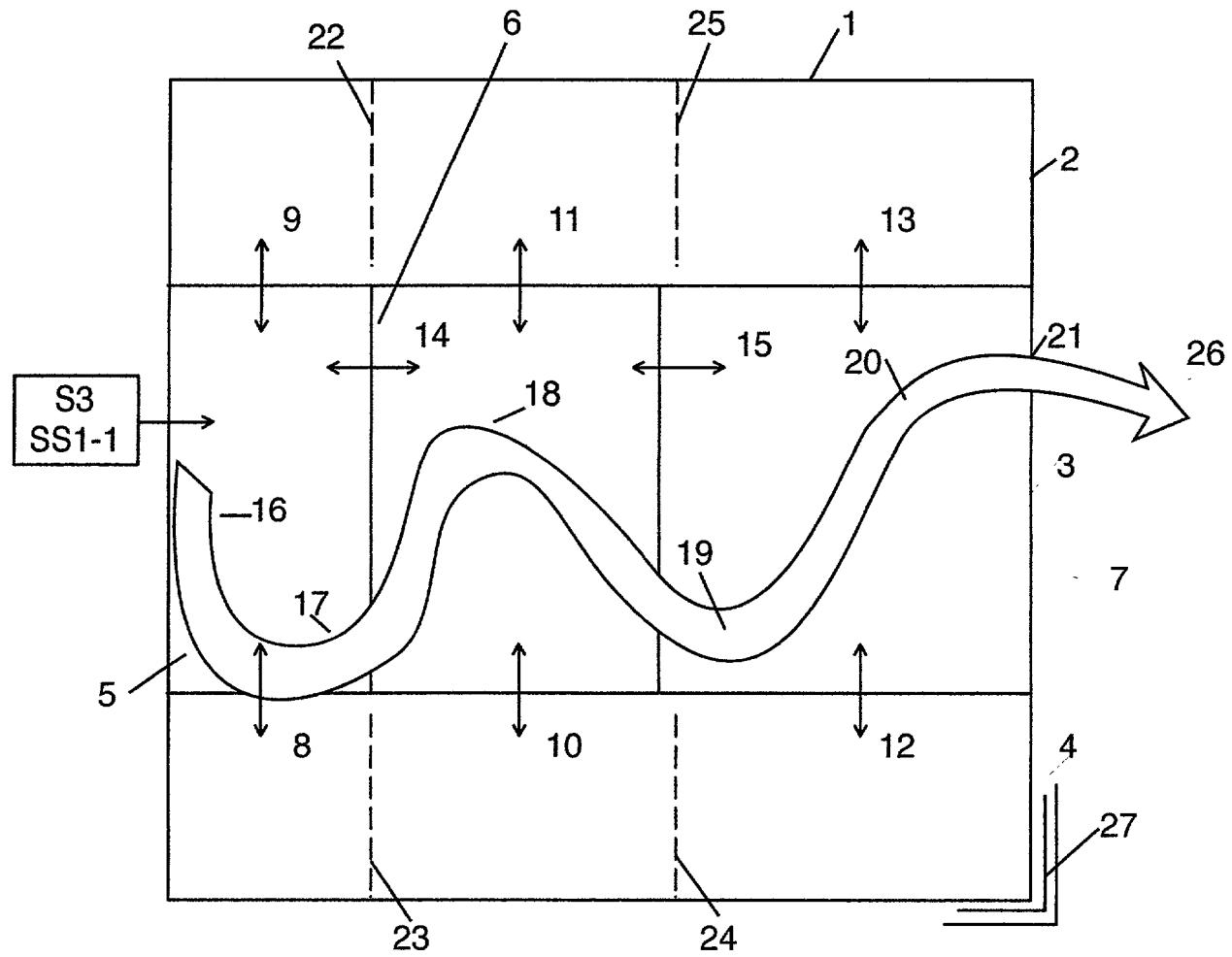


Fig. SS1-8

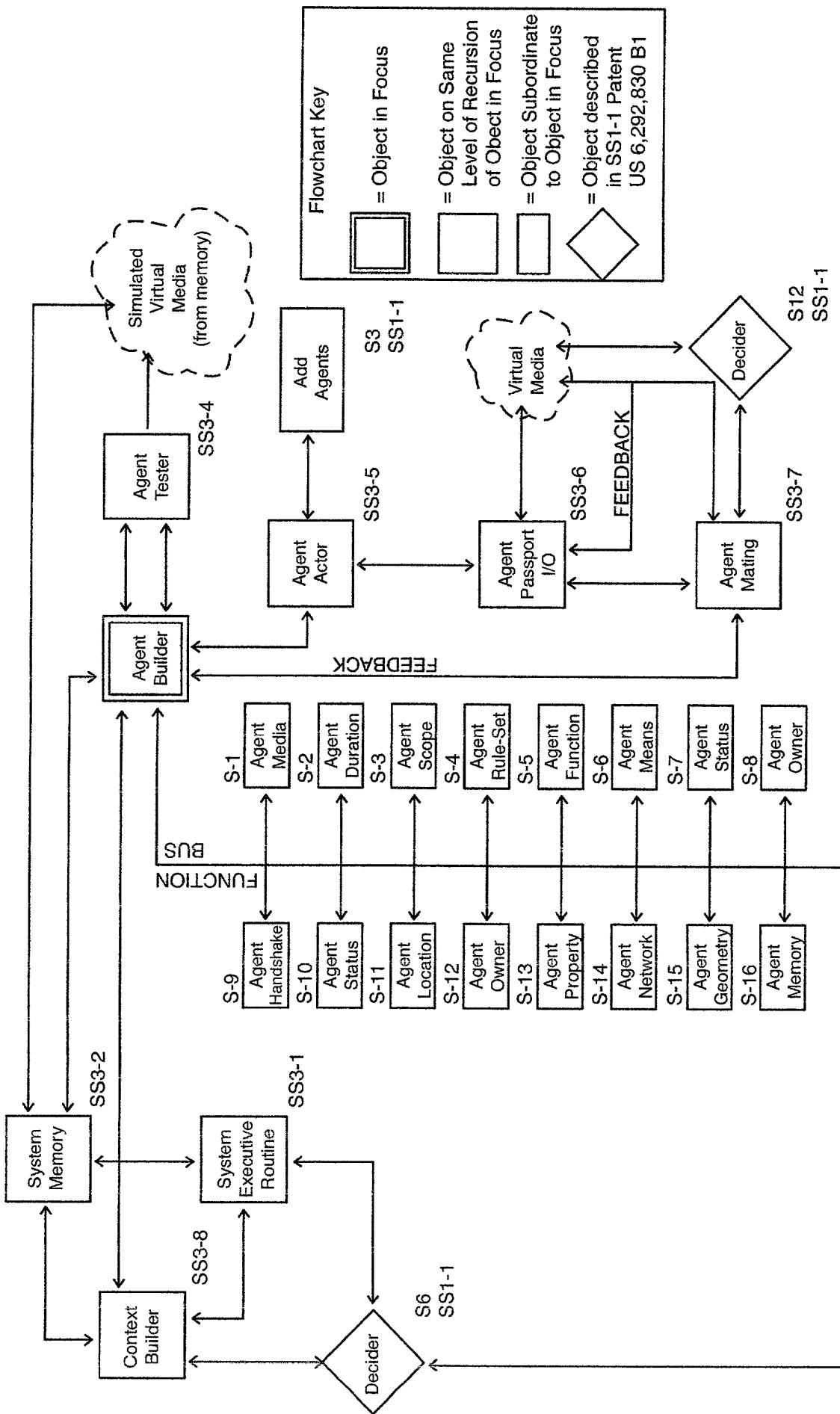


Fig. SS3-3

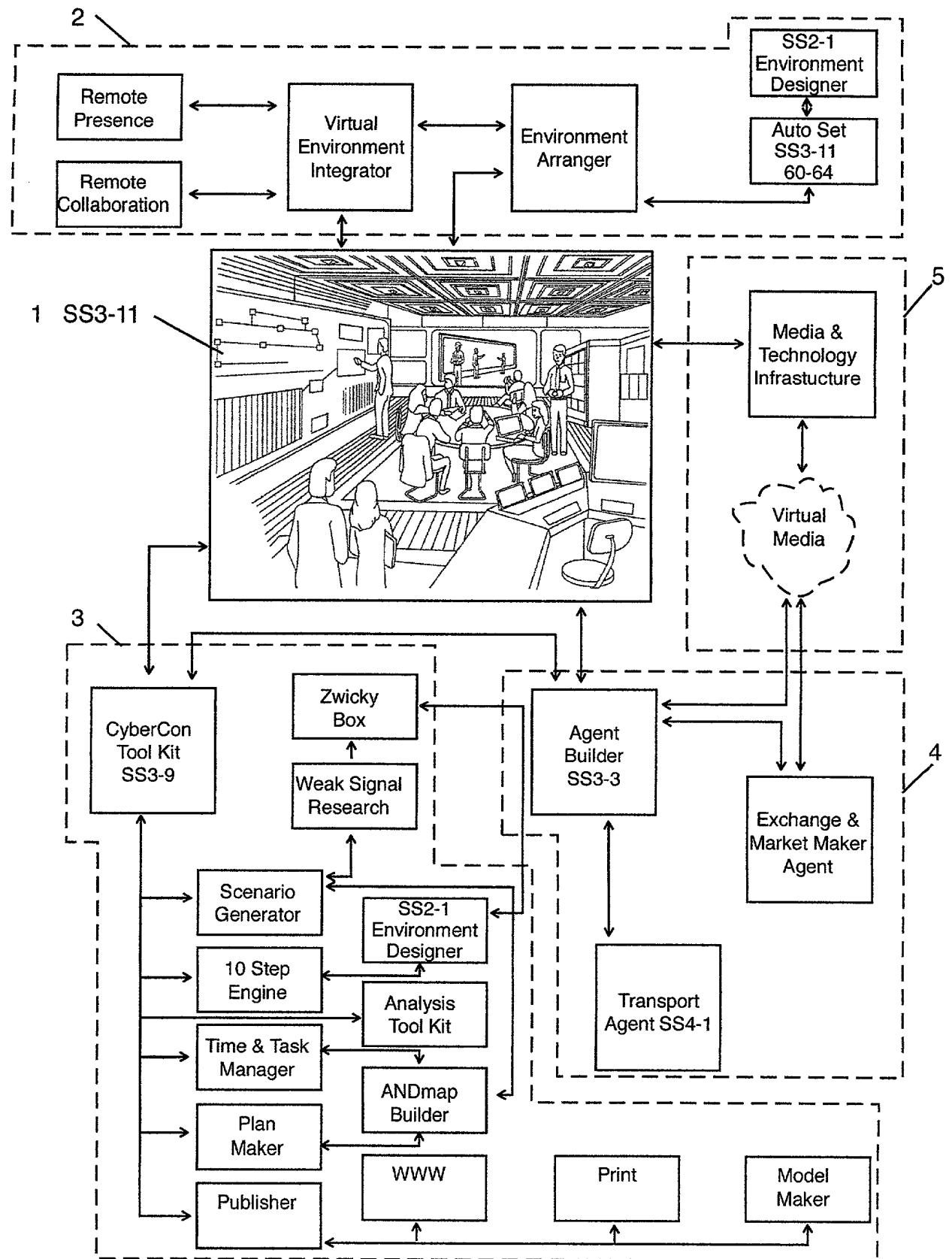


Fig. SS3-12

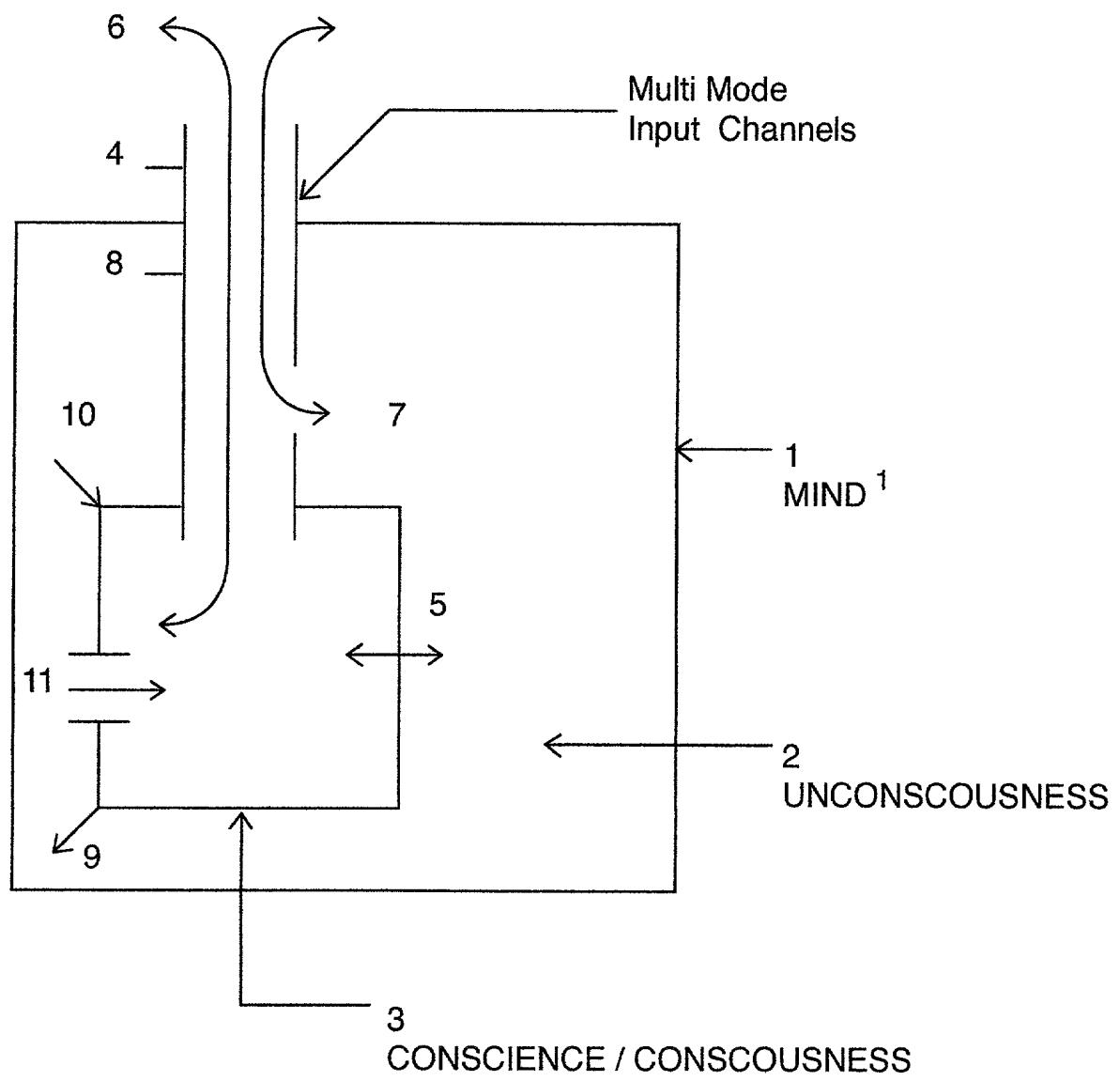


Fig. SS6-1

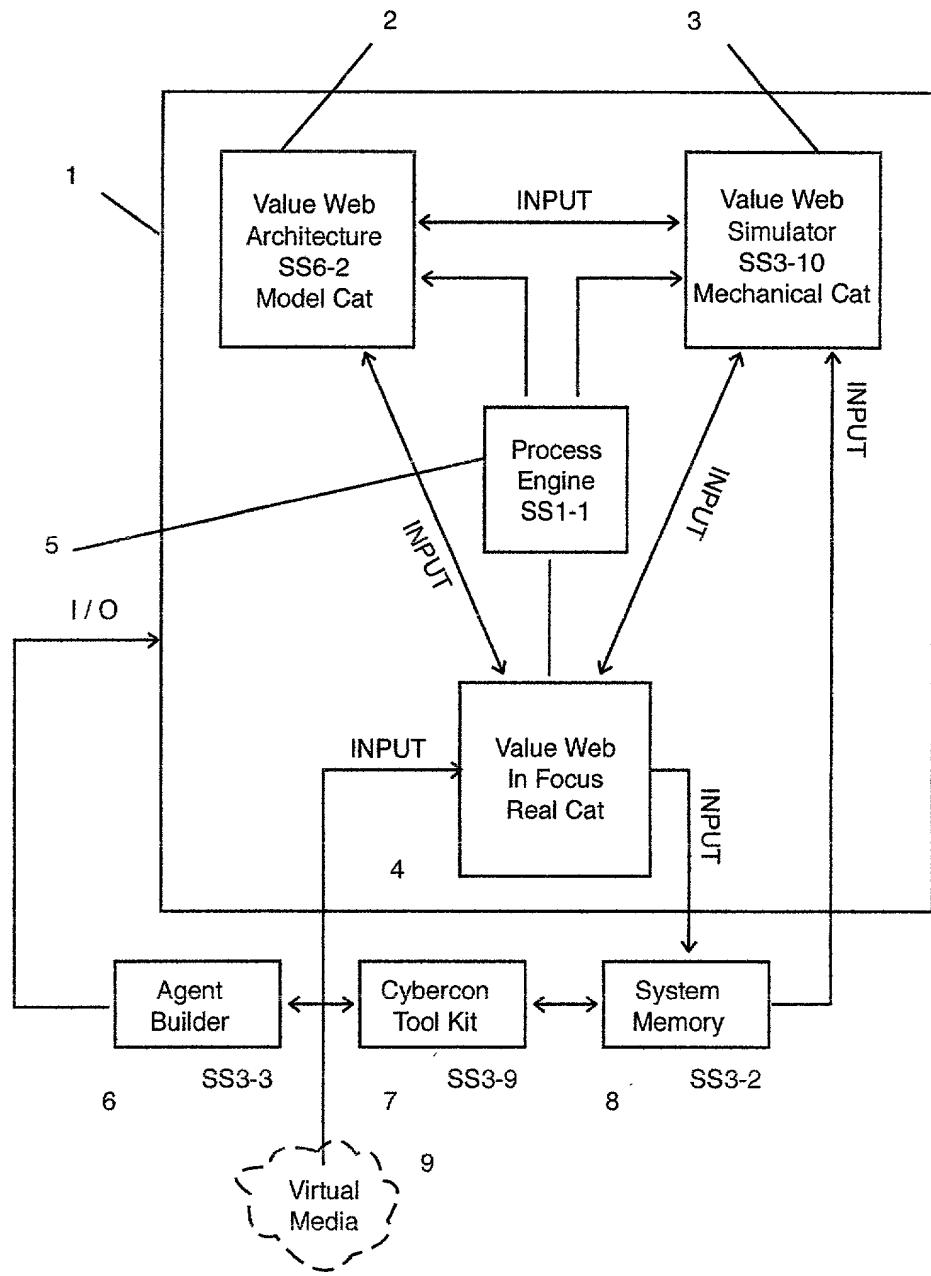


Fig. SS6-3